

Application No. 10/623,370
SD-7250.1

REMARKS

Claim Status:

- Claims 1-11, 17-21, 26-27, 29-31, 34-35 and 37-42 are pending.
- Claims 1-11, 17-21, 26-27, 29-31, 34-35 and 37-42 are rejected.
- Claims 1, 10, 12-16, 21-33 and 36-38 are cancelled.

This leaves claims 2-9, 11, 17-20, 34-35, 39-41 and new claims 43-45 to be discussed.

Claim Amendments

- Claims 2-9 and 11 were amended to depend from claim 17.
- Claim 19 was amended to recite an additional ingredient, a cationic hydrotrope.
- Claim 35 was amended to limit the sorbent additive to being selected from the group consisting of calcium hypochlorite, calcium chloride, dendritic salt, polyols, urea, and potassium bromide, and combinations thereof.
- Claim 40 was rewritten in independent form, including all of the limitations of the base claim 39.
- Claim 41 was amended to depend from claim 40.

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New Claims

- New claim **43** was added, which depends from claim **19**, and lists specific compounds for the cationic hydrotrope. Support can be found in applicant's Specification at p. 10, lines 1-5.
- New claim **44** was added, which depends from claim **7**. In claim **44**, the list of bleaching activator compounds is the same as in claim **7**, except that the following two compounds were deleted from the list in claim **7**: *ethylene glycol diacetate* and *glycerol triacetate*.
- New claim **45** was added, which depends from new claim **44**. Claim **45** further limits the selection of bleaching activators to being either acetylcholine chloride or 4-cyanobenzoic acid.

Claim Rejections – 35 USC §112

Claim 9

The Office rejected claim **9** under 35 USC §112, Second Paragraph as being indefinite. In response, applicants replaced the phrase “**consisting essentially of**” with “**comprising**”. Also, claim **1** was cancelled, and claim **9** was amended to depend from claim **17**. Claim **17** does not require that the formulation comprise a cationic hydrotrope. Accordingly, the claim language is now clear and definite. The rejection under 35 USC §112 has been overcome.

Claim Rejections – 35 USC §103(a)

Claims 1-10, 17-21, 27, 29-31, 35 and 37

The Office rejected claims **1-10, 17-21, 27, 29-31, 35 and 37** under 35 USC §103(a) as being unpatentable over Tadros et al. (WO 01/02192 A1) in view of Nakagawa et al (3,901,819).

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In response, applicants cancelled independent claims 1, 21, 27 and 37. Claims 2-9 were amended to depend from claim 17. Dependent claims 10, 29-31 and 37 were cancelled.

This leaves independent claims 17 and 35 to be discussed. Applicants respectively **traverse** the rejection. Both claims 17 and 35 limit the **sorbent additive** to being selected from the group consisting of **calcium hypochlorite, calcium chloride, dendritic salt, polyols, urea, and potassium bromide**, and combinations thereof.

Neither of the references cited by the Office, *Tadros* or *Nakagawa*, teach or even suggest these specific sorbent additives. Hence, a *prima facie* case of obviousness cannot be supported. Accordingly, independent claims 17 and 35 are now in condition for allowance.

Claims 2-9, 18-20, and (new) claims 43-45 depend from claim 17, and, hence, are also now allowable.

Claims 11, 26, 34, and 38-42

The Office rejected claims 11, 26, 34, and 38-42 under 35 USC §103(a) as being unpatentable over *Tadros et al. WO 02/02192 A1* in view of *Nakagawa et al. (3,901,819)* and further in view of *Huth et al. (6,448,062)*. Applicants respectively **traverse**.

Claims 26 and 38 were cancelled.

The remaining claims 11, 34 and 39-42 recite that the sorbent additive comprises a polyol or sugar alcohol. While it is true that *Huth* teaches a polyol, such as sorbitol; applicants respectfully submit that the Office **has not shown sufficient evidence, and has failed to provide a convincing line of reasoning, to support a teaching or suggestion** within the prior art, within the nature of the problem to be solved, or within the general knowledge of a person of ordinary skill in the field of the invention, that would motivate such a person to make the combination of the enzyme stabilizer (polyol) from *Huth*, with the chem/bio decontamination formulation taught by *Tadros*, and the laundry detergent bleach activator taught by *Nakagawa*.

It is impermissible to use a claimed invention as a "template or guide" in order to piece together the teachings of prior art references which show only individual elements of the claimed invention, in an effort to create a mosaic of such prior art to argue

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obviousness. In re Fritch, 972 F.2d 1260, 1265-6, 23 USPQ2d 1780, 1783-4 (Fed. Cir. 1992). Piecemeal reconstruction of an invention is the result of improper hindsight reconstruction, which is strictly forbidden by law. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991).

The Office cites the passage in *Huth* (Col. 20, lines 26-41) as providing evidence that "*it is well known in the art*" to use drying agents, such as polyols, for "*the benefits that such drying agents would effect in said decontamination formations.*" See page 5 of the Office Action dated 09/09/2006. Applicants respectfully traverse.

Huth teaches that the purpose of using a drying agent is as follows:

"The shelf-life stability of enzymes useful in the present invention [*Huth*] can be achieved or improved with standard methods such as adding calcium ions for subtilisin in a liquid formulation or producing a liquid formulation of low water content. One way of reducing water in the formulation is to use propylene glycol, other glycols, as well as other polyols such as various sugars, e.g., sorbitol."

Huth (Col. 20, lines 26-33).

Hence, we see that *Huth* teaches using polyols to produce a liquid formulation having low water content in order to increase the shelf-life stability of the enzyme cleaning solution. Nowhere does *Huth* teach using polyols to convert one or more liquid components of the formulation into a **dry, free-flowing powdered form**; which is the reason for using sorbent additives (e.g., such as polyols) in the present invention.

The primary use of a polyol sorbent additive (or any sorbent additive, for that matter) in the present invention is to convert the Part C liquid "peroxide activator" (i.e., bleaching activator, e.g., propylene glycol diacetate, glycerol diacetate, etc.) into a dry, free-flowing powder that is easier to handle and less likely to leak.

Contrary to this, *Huth* teaches using a polyol to **reduce the water content** of a liquid enzyme solution in order to extend the shelf-life of the liquid enzyme formulation. A person of ordinary skill in the art of making/designing/using chem/bio decontamination formulations, which do not contain enzymes, would **not be motivated** to search for, or learn about, or be aware of published literature regarding methods for extending the shelf-life of liquid enzyme solutions (especially methods that do not seek to convert the liquid enzyme solution into a dry, free-flowing powder).

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Hence, it is applicants belief that the Office's obviousness conclusion is based upon impermissible hindsight derived from applicant's own specification and claims, rather than from some teaching, suggestion or motivation derived from the prior art.

Accordingly, the rejection under 103(a) has been overcome, and claims **11, 34 and 39-42** are now in condition for allowance.

Claims 27 and 29-31

The Office rejected claims **27** and **29-31** under 35 USC §103(a) as being obvious over by *Krezanoski* (3,852,210) in view of *Nakagawa et al* (3,901,819). Claims **27** and **29-31** are cancelled.

Claim 40

The Office rejected claim **40** under 35 USC §103(a) as being unpatentable over *Tadros et al. WO 02/02192 A1* in view of *Nakagawa et al* (3,901,819) and further in view of *Huth et al.* (6,448,062). Applicants respectively **traverse**.

Claim **40** has been rewritten in independent form, including all of the limitations of the base claim **39**. Claim **40** recites that the sorbent additive is **sorbitol**, as disclosed in applicant's Provisional Application Serial no. 60/397,424 filed 07/19/2002.

A revised, supplemental Statement of Common Ownership under 35 USC 103(c) is attached (See Appendix A), which has been updated to make a specific reference to the *Tadros* reference WO 02/02192 A1 as being commonly owned by Sandia Corporation. The provisional filing date of 07/19/2002 is only about 6 months after *Tadros* WO 02/02192 A1 was published on 01/10/2002. Therefore, because *Tadros* was published less than 1 year prior to applicant's effective filing date of 07/19/2002, it cannot be used as a proper "102(b) type" reference for use in 103(a) rejections.

Applicants submit that the provisions of MPEP 706.02 (I)(2) continue to afford a safe harbor under 35 USC 103(c) for any 103(a) rejections based on the *Tadros* WO reference.

Accordingly, claim **40** is now in condition for allowance; as well as it's dependent claim **41**.

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CONCLUSION

Applicants have responded to each and every objection and rejection, and urge that claims **2-9, 11, 17-20, 34, 35, 39-41** and new claims **43-45** as presented and amended are now in condition for allowance. Applicants request expeditious processing to issuance.

The Office is authorized to charge **Deposit Account # 19-0131** for any necessary fees regarding this response.

Respectfully submitted,



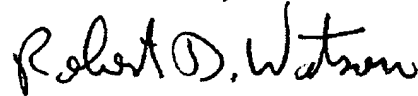
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APPENDIX A

REVISED, SUPPLEMENTAL

Statement of Common Ownership under 35 U.S.C. 103(c)

As required to invoke the safe harbor provisions of 35 U.S.C. 103(c), as amended by the CREATE Act of 2004, the following Statement is provided.

A Cooperative Research and Development Agreement (CRADA) under the Stevenson-Wydler Act 15 (U.S.C. 3710) was signed June 21, 2001 between Sandia Corporation of Albuquerque, NM and EnviroFoam Technologies, Inc. of Huntsville, AL (hereinafter referred to as EFT, Inc.). This CRADA agreement qualifies as a Joint Research Agreement, as defined by 35 U.S.C. 103(c)(3). The original length of this Joint Research Agreement was 24 months, i.e., to June 21, 2003, but it was later extended by an additional 30 months until 12/21/2005.

During the period of time that this Joint Research/CRADA Agreement was in effect (i.e., from 6/21/2001 to 12/21/2005), the present invention was made by joint co-inventors Mark D. Tucker and Robert H. Tucker as a result of activities undertaken within the scope of the joint research agreement. At the time the invention was made, Dr. Tucker was an employee of Sandia Corporation; and Mr. Comstock was an employee of EFT, Inc. Hence, the claimed invention was made on behalf of the two parties (Sandia and EFT) to the Joint Research Agreement, which was in effect (6/21/2001) before the date the claimed invention was made (the provisional application 60/397,424 was filed 07/19/2002, and the invention disclosure was submitted to Sandia Corporation on 07/18/2002). The instant patent application has been amended to disclose the names of the two parties (Sandia and EFT, Inc.) to the joint research agreement.

The disqualified subject matter, *Tadros WO 02/02192 A1*, patent 6,566,574 to Tadros et al., and patent 6,723,890 to Tucker et al., were all made on behalf of Sandia Corporation, and were all owned by Sandia Corporation when the present invention was

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made. All of the co-inventors (Maher E. Tadros of Albuquerque, NM; Mark D. Tucker of Albuquerque, NM; and Rita G. Betty of Rio Rancho, NM were (and currently are) employees of Sandia Corporation, and all of them had (and currently have) obligations to assign their inventions to Sandia Corporation.

Accordingly, the instant application and the **three** disqualified prior art patents (**WO 02/02192 A1 to Tadros et al.**, 6,566,574 to Tadros et al., and 6,723,890 to Tucker et al.) should be treated as if they are commonly owned for the purposes of examination under 35 U.S.C. 103 (c) (1).